**Aakash Basnet**

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**Summary**

Software developer with 4 + years of experience in building web applications, RESTful API, ETL tools, big data pipelines and machine learning tools. Has a solid understanding of the entire software development lifecycle, following agile and lean methodologies.

**WORK EXPERIENCE**

**Bank of America August 2022 – Present**

*Big Data Backend Developer Plano, TX, USA*

* Designed and implemented complex PySpark applications for large scale data processing.
* Worked on building and optimizing Spark data processing pipelines for improved performance and scalability.
* Implemented Spark streaming applications for real-time data processing and analytics.
* Built dashboard and admin application using Flask framework for data analytics platform and reporting tool.
* Built and maintained Spark data ingestion from various sources such API, HDFS, and databases.
* Automated ETL process and worked on the integration of Spark with other big data technologies like Hadoop, Hive (NoSQL) databases.
* Designed and developed data processing frameworks for big data analytics and machine learning.
* **Technologies used**: Python, pySpark, Flask, pytest, HDFS, Hive, HQL, Cloudera, Hue, powerbroker, AutoSys, Git, Jenkins, bash

**PennyMac August 2021 – May 2022**

*Python/AWS Backend Developer Fort Worth, TX, USA*

* Developed ETL tools as per requirements to update the data into Postgres database from various data sources and REST APIs.
* Used ORM’s for generating the complex SQL queries and building reusable code and libraries in python.
* Integrated OCR tool like google vision to the ETL process for automating the process of changing images and pdf to text before extracting the data.
* Created python and bash tools to increase efficiency of documents management systems and operations.
* Involved in analyzing data and helped analysts to spot the trends.
* Designed, developed and maintained mailbox reader tool to extract the documents form email attachment for auto data extracting using python.
* Developed and Migrated complex, multi-tier applications on AWS using EC2 instances, S3 storage, SQS
* Assisted business and technology stakeholders in establishing a data management framework with necessary data quality controls and governance.
* **Technologies Used**: python, Flask, pandas, numpy, matplotlib, pytest, Jupyter Notebook,AWS(EC2, S3, SQS), SQL, mongo db, Git, Docker, Jenkins, corn, OCR, google vision, opencv, NLP, DataDog

**Vitol April 2020 – July 2021**

*Python Backend Developer Houston, TX, USA*

* Built and maintained custom python CLI framework that manages ETL process from scratch .
* Migrated and automated hundreds of business loading processes to load through a common framework reducing the runtime by 60% and maintenance time by 80%.
* ​​Managed more than 2000 automated data feeds that are actively scraping millions rows of data daily from multiple sources (stp, ftp, email, webpage, web application , API).
* Reverse engineered web technologies for writing automated python feeds using packages like requests, BeautifulSoup and Selenium to scrape data without being noticed by the server.
* Wrote optimized scripts to scrape the API that charges money based on the number of API calls made. Always met the expected cost each billing cycle with an error margin of 2 %.
* **Technologies used**: python, BeautifulSoup, Selenium, pytest, REST API, multithreading, reverse Proxy, AWS (EC2, S3, SageMaker), Apache, SQL, MongoDb, Git, Docker, Jenkins, ElasticSearch

**Bank of America April 2019 – Dec 2019**

*Python Backend Developer Houston, TX, USA*

* Developed an end to end approval system for approving or rejecting the permission request for various banking applications using Python and Flask.
* Maintained and updated real time trading tools using real time tables, websockets and messaging middleware.
* Created automated scripts to pull data from multiple systems to produce reports.
* Assisted migrating python 2 legacy codebase to python 3.
* Involved in system design by selecting the design patterns and technology stacks.
* **Technologies used**: REST, python, unittest, Flask, SQLAlchemy, pandas, Jinja2, JQuery, AMPS (message-broker system), Cassandra, SQL,Git, JIRA, bash shell, HTML, CSS

**Bureau of Business and Economic Research (BBER) May 2018 – Dec 2018**

*Full Stack Developer Albuquerque, NM, USA*

* Managed database of more than 10MM records data by writing automated scripts for data updating and cleaning process which saved monotonous working hours.
* System administrator for AWS based servers for handling production and staging server instances, server database management and creating API nodes for new functionality.
* Built end to end data dashboard for business reporting and research using Python, Flask and d3.js
* Worked with web scraping tools like BeautifulSoup and selenium for extracting data from various government and organization websites and API.
* **Technologies used:** REST, python, Falsk, Jinja, pytest, pandas, jquery, PostgreSQL, MongoDb, AWS(EC2, S3), d3.js, Jenkins, GIT, Apache, HTML, CSS,

**EDUCATION**

**University of New Mexico - School of Engineering Dec, 2018**

*BS in Computer Science and Information Systems with Minor in Mathematics Albuquerque, NM, USA*

GPA: 3.7

**University of Cumberlands May, 2023**

*MS in Information Technology and Systems Williamsburg, KY, USA*

GPA: 3.8

**CERTIFICATIONS, SKILLS & INTERESTS**

* **Certifications:** IBM Data Mining
* **Skills :** python, Flask, pandas, numpy, matplotlib, pytest, Jupyter Notebook,AWS(EC2, S3, SQS), SQL,SQL, mongo db, Git, Docker, Jenkins, corn, OCR, google vision, opencv, NLP, DataDog, Jinja,JQuery, AJAX,HTML, CSS, Kafka,Hadoop,HDFS, pySpark,Rest API,
* **Interests :** mountain biking, hiking, DIY projects, football, basketball, books, podcasts, guitar